CLAIMS

What is claimed is:

1.   A method for receiving analog broadcasting using a digital broadcasting receiver, comprising the steps of:

selecting a digital broadcasting channel and an analog broadcasting channel by equipping with a digital broadcasting tuner and an air tuner;

receiving said digital broadcasting via said digital broadcasting tuner and separating a video signal and an audio signal by MPEG processing when said selected broadcasting channel is the digital broadcasting channel;

receiving said analog broadcasting by tuning said air tuner, extracting a synchronous signal from said received analog broadcasting signal and adjusting the extracted synchronous signal to a synchronous signal of digital broadcasting when said selected broadcasting channel is the analog broadcasting channel;

encoding said MPEG processed video signal and predetermined additional information selectively, according to said extracted synchronous signal;

selecting, overlapping and transmitting said encoded video signal, the additional information and the video signal of said received analog broadcasting, if necessary; and

selecting said MPEG processed audio signal and the audio signal of said received analog broadcasting and transmitting the selected signal.

2.   The method for receiving the analog broadcasting using the digital broadcasting receiver of claim 1, wherein, in said encoding step, said MPEG processed video data are overlapped with said additional information and are analogized when said selected channel is the digital broadcasting and only said additional information is analogized when said selected channel is the analog broadcasting.

3.   The method for receiving the analog broadcasting using the digital broadcasting receiver of claim 1, wherein in said transmitting step, said overlapped video signal and said additional information are selected and transmitted when said selected channel

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4   is the digital broadcasting and the video signal of said analog broadcasting with which said

5   additional information is overlapped and transmitted when said selected channel is the analog

6   broadcasting.

1   4.   The method for receiving the analog broadcasting using the digital

2   broadcasting receiver of claim 1, wherein, in said transmitting step, the information except

3   for a transparency from said additional information is mapped with said analog video signal

4   and is transmitted when said selected channel is the analog broadcasting.

1   5.   A digital broadcasting receiver which MPEG processes and transmits a video

2   signal and an audio signal from a received carrier signal via a digital broadcasting tuner to a

3   television receiver, comprising:

4   a controller which determines whether an analog broadcasting channel or a digital

5   broadcasting channel is selected and generates more than two control signals having

6   respectively different information, for receiving analog/digital broadcasting, according to said

7   selection;

8   a digital broadcasting tuner and an air tuner for respectively receiving the digital

9   broadcasting and the analog broadcasting, by said controller;

10   a synchronous separation unit for extracting a synchronous signal from said analog

11   broadcasting signal received by said air tuner;

12   an additional information process unit for generating additional information by said

13   controller;

14   a video encoder unit for encoding said video signal and said additional information,

15   which are MPEG processed, into the analog video signal according to the control signal

16   which is generated from said controller and the synchronous signal of a synchronous signal

17   separating means;

18   a video mix unit for mixing the video signal which is received from said air tuner and

19   the said encoded video signal, according to the control signal of said controller, and

20   transmitting the mixed signal;

21   a digital/analog converting unit for analogizing said MPEG processed audio signal;

22 and

23   an audio selection unit for selecting and transmitting said converted audio signal and

24 the audio signal of said air tuner, according to the control signal of said controller.

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1   6.   The digital broadcasting receiver of claim 5, further comprising a

2   luminance/color separation unit for separating the analog signal which is obtained by mixing

3   in said video mix unit into a luminance signal and a color signal and transmitting the

4   separated analog signal.

1   7.   The digital broadcasting receiver of claim 5, wherein said video mix unit

2   overlaps the additional information which is obtained by said video encoder unit onto the

3   analog video signal which is received by said air tuner and transmits the overlapped analog

4   video signal.

8.   The digital broadcasting receiver of claim 5, further comprising:

a luminance/color separation unit for separating the analog broadcasting signal which

is received by said air tuner into a luminance signal and a color signal; and

a switching unit for detecting said separated luminance signal and said color signal,

changing the same to a continuous signal according to the control signal of said controller

and transmitting the continuous signal.

1   9.   The digital broadcasting receiver of claim 5, wherein said video mix unit

2   includes a switcher which maps the additional information except the transparency between

3   the analog signal which is obtained by said video encoder unit and the analog video signal

4   which is received from said air tuner, according to the control signal of said controller, and

5   outputs the mapped additional information.

1   10.   The digital broadcasting receiver of claim 7, wherein said video mix unit

2   includes a switcher which maps the additional information except the transparency between

3   the analog signal which is obtained by said video encoder unit and the analog video signal

4   which is received from said air tuner, according to the control signal of said controller, and

5   outputs the mapped additional information.

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